

What is claimed is:

1. A method for enabling a first network to detect a loop in a second network, the second network being communicably coupled to the first network, the first network running a first loop avoidance protocol instance, the second network not running the first loop avoidance protocol instance, the method comprising:

    sending a first loop packet from a first port in a bridge of the first network running a loop avoidance protocol instance, the first loop packet including a first identifier with a first reference to the first port;

    receiving a second loop packet at the bridge, the second loop packet including a second identifier with a second reference to a second port;

    comparing the second reference with the first reference; and

    detecting the loop in the second network when the first and second references match.

2. The method as recited in claim 1, further comprising blocking at least one of the ports in the first bridge when the first and second references match.

3. The method as recited in claim 2, wherein the blocking includes blocking the port which sent the first loop packet.

4. The method as recited in claim 2, wherein the blocking includes blocking the port which received the second loop packet.

5. The method as recited in claim 2, further comprising, when the second reference does not match the first reference, for a defined period of time, opening the at least one of the ports in the bridge which was blocked.

6. The method as recited in claim 1, comprising when the second identifier does not correspond to any of the ports in the bridge, forwarding the second loop packet to another bridge.

7. The method as recited in claim 1, wherein the first identifier further includes a third reference to the bridge, the second identifier further includes a fourth reference to another bridge, and the method further comprises:

comparing the third and fourth references; and

when the third reference matches the fourth reference and the first reference does not match the second reference, dropping the second loop packet.

8. The method as recited in claim 1, wherein the first network is running a first instance of a spanning tree protocol and the second network is not running the first instance of the spanning tree protocol.

9. The method as recited in claim 1, wherein the first identifier includes a third reference to a VLAN where the first port resides.

10. A system for enabling a first network to detect a loop in a second network, the second network being communicably coupled to the first network, the first network running a first loop avoidance protocol instance, the second network not running the first loop avoidance protocol instance, the system comprising:

a first network;

a bridge in the first network;

a first port in the bridge; wherein

the first port sends a first loop packet including a first identifier with a first reference to the first port;

the bridge receives a second loop packet, the second loop packet including a second identifier with a second reference to a second port; and

the bridge further determines the second reference, compares the second reference with the first reference, and detects the loop in the second network when the first and second references match.

11. The system as recited in claim 10, wherein the bridge further blocks at least one of the ports in the bridge when the first and second references match.

12. The system as recited in claim 11, wherein the blocking includes blocking the port which sent the first loop packet.

13. The system as recited in claim 11, wherein the blocking includes blocking the port which received the second loop packet.

14. The system as recited in claim 11, wherein when the second reference does not match the first reference for a defined period of time, the first bridge opens the at least one of the ports which was blocked.

15. The system as recited in claim 10, wherein when the second identifier does not correspond to any of the ports in the bridge, the bridge forwards the second loop packet to another bridge.

16. The system as recited in claim 10, wherein the first identifier further includes a third reference to the bridge, the second identifier further includes a fourth reference to another bridge, and the bridge further:

compares the third and fourth references; and

when the third reference matches the fourth reference and the first reference does not match the second reference, the bridge drops the second loop packet.

17. The system as recited in claim 10, wherein the first network is running a first instance of a spanning tree protocol and the second network is not running the first instance of the spanning tree protocol.

18. The system as recited in claim 10, wherein the first identifier includes a third reference to a VLAN where the first port resides.

19. A bridge in a first network communicably coupled to a second network, the first network running a first loop avoidance protocol instance, the second network not running the first loop avoidance protocol instance, the bridge comprising:

a first port; wherein

the first port sends a first loop packet including a first identifier with a first reference to the first port;

the bridge receives a second loop packet, the second loop packet including a second identifier with a second reference to a second port; and

the bridge determines the second reference, compares the second reference with the first reference, and detects a loop in a second network when the first and second references match.

20. The bridge as recited in claim 19, wherein the bridge further blocks at least one of the ports in the bridge when the first and second references match.

21. The bridge as recited in claim 20, wherein the blocking includes blocking the port which sent the first loop packet.

22. The bridge as recited in claim 20, wherein the blocking includes blocking the port which received the second loop packet.

23. The bridge as recited in claim 20, further comprising, when the second reference does not match the first reference for a defined period of time, opening the at least one of the ports in the bridge which was blocked.

24. The bridge as recited in claim 19, wherein when the second identifier does not correspond to any of the ports in the bridge, the bridge forwards the second loop packet to another bridge.

25. The bridge as recited in claim 19, wherein the first identifier further includes a third reference to the bridge, the second identifier further includes a fourth reference to another bridge, and the bridge further:

compares the third and fourth references; and

when the third reference matches the fourth reference and the first reference does not match the second reference, the bridge drops the second loop packet.

26. The bridge as recited in claim 19, wherein the first identifier includes a third reference to a VLAN where the first port resides.

27. A computer readable storage medium including computer executable code for enabling a first network to detect a loop in a second network, the second network being communicably coupled to the first network, the first network running a first loop avoidance protocol instance, the second network not running the first loop avoidance protocol instance, the code performing the steps of:

sending a first loop packet from a first port in a bridge of the first network, the first loop packet including a first identifier with a first reference to the first port;

receiving a second loop packet at the bridge, the second loop packet including a second identifier with a second reference to a second port;

determining the second reference;

comparing the second reference with the first reference; and

detecting the loop in the second network when the first and second references match.

28. The storage medium as recited in claim 27, wherein the code further enables the step of blocking at least one of the ports in the first network when the first and second references match.

29. The storage medium as recited in claim 28, wherein the blocking includes blocking the port which sent the first loop packet.

30. The storage medium as recited in claim 28, wherein the blocking includes blocking the port which received the second loop packet.

31. The storage medium as recited in claim 28, wherein the code further enables the step of opening at least one of the ports in the bridge which was blocked when the second reference does not match the first reference for a defined period of time.

32. The storage medium as recited in claim 27, wherein when the second identifier does not correspond to any of the ports in the bridge, the code further enables the step of forwarding the second loop packet to another bridge.

33. The storage medium as recited in claim 27, wherein the first identifier further includes a third reference to the bridge, the second identifier further includes a fourth reference to another bridge, and the code further enables the steps of:

comparing the third and fourth references; and

when the third reference matches the fourth reference and the first reference does not match the second reference, dropping the second loop packet.

34. The storage medium as recited in claim 27, wherein the first identifier includes a third reference to a VLAN where the first port resides.

35. A system for enabling a first network to detect a loop in a second network, the second network being communicably coupled to the first network, the first network running a first loop avoidance protocol instance, the second network not running the first loop avoidance protocol instance, the system comprising:

a first network;

a plurality of bridges in the first network;

a plurality of ports, at least one port for each of the bridges; wherein

each port connected to the second network sends a respective first loop packet including a first identifier with a first reference to the respective port;



each bridge receives a respective second loop packet, each second loop packet including a respective second identifier with a respective second reference to a respective second port; and

each respective bridge further determines the respective second reference, compares the respective second reference with the respective first reference, and detects a loop in the second network when the respective first and respective second references match.

36. A method for enabling a first network to detect a loop in a second network communicably coupled to the first network, the first network running a first loop avoidance protocol instance, the second network not running the first loop avoidance protocol instance, the method comprising:

running a second protocol in the first network to detect a loop in the second network; and protecting the first network when a loop is detected in the second network.

37. A system for enabling a first network to detect a loop in a second network communicably coupled to the first network, the system comprising:

a first network running a first loop avoidance protocol instance;

a second network not running the first loop avoidance protocol instance; and

wherein:

the first network runs a second loop avoidance protocol instance to detect for a loop in the second network; and the first network further protects the first network when a loop is detected in the second network.

38. The system as recited in claim 37, wherein the protecting includes blocking one of the ports in the first network.

39. A system comprising:  
a first network running a first loop avoidance protocol instance; and  
a second network communicably coupled to the first network, the second network not running the first loop avoidance protocol instance and having a loop;  
wherein the first network is protected from the loop in the second network.

40. The method as recited in claim 2, wherein the blocking includes blocking one of the port which sent the first loop packet and the port which received the second loop packet based on the respective port IDs.

41. The system as recited in claim 11, wherein the bridge blocks one of the port which sent the first loop packet and the port which received the second loop packet based on the respective port IDs.

42. The bridge as recited in claim 20, wherein the bridge blocks one of the port which sent the first loop packet and the port which received the second loop packet based on the respective port IDs.

43. The storage medium as recited in claim 28, wherein the blocking includes blocking one of the port which sent the first loop packet and the port which received the second loop packet based on the respective port IDs.